



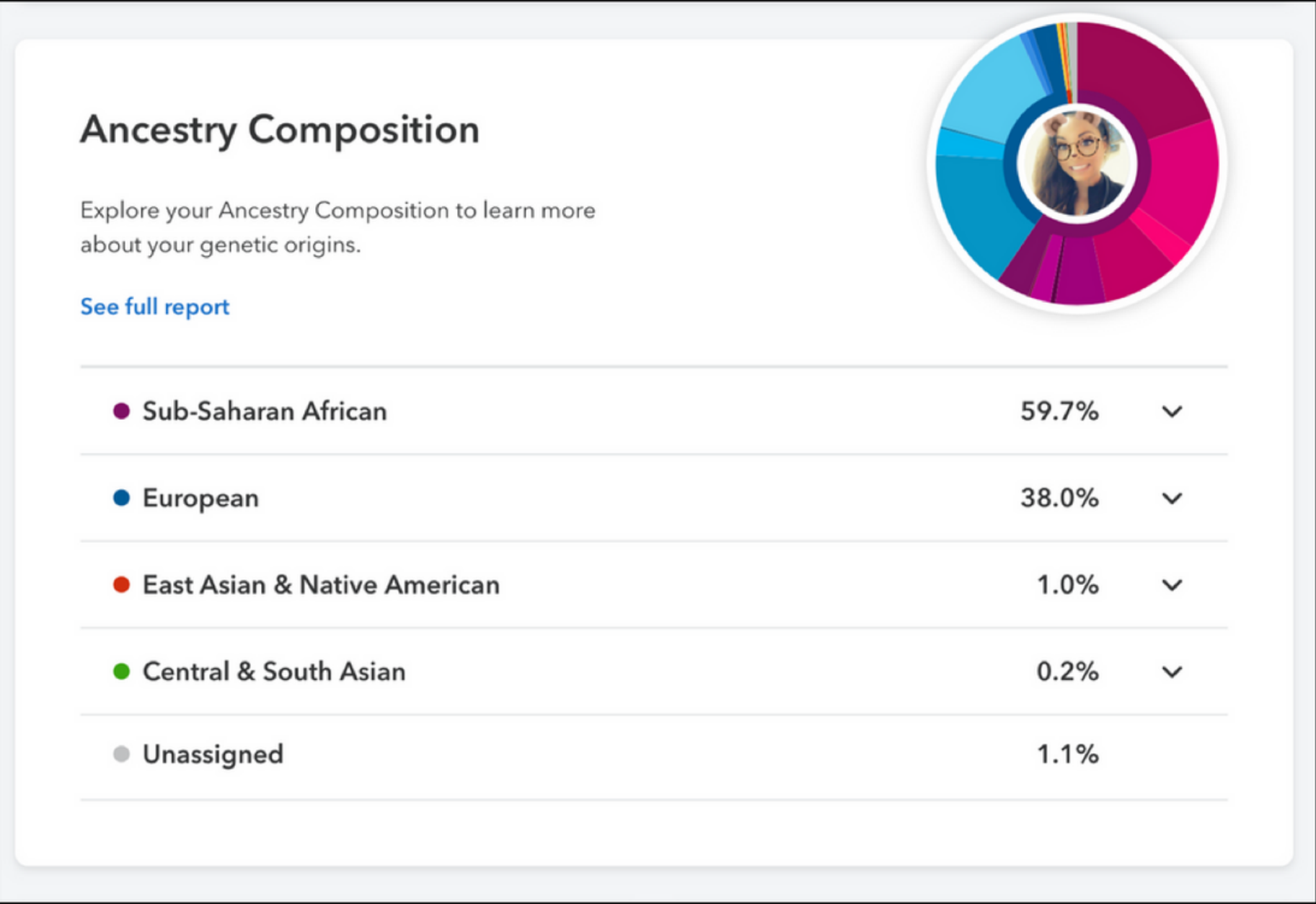
The Cost of Being Black

The Influence of Race on Health Disparities

Ebony Jade Hilton, MD
GOODSTOCK Consulting, LLC

Disclaimer

I am Black



I come in Peace





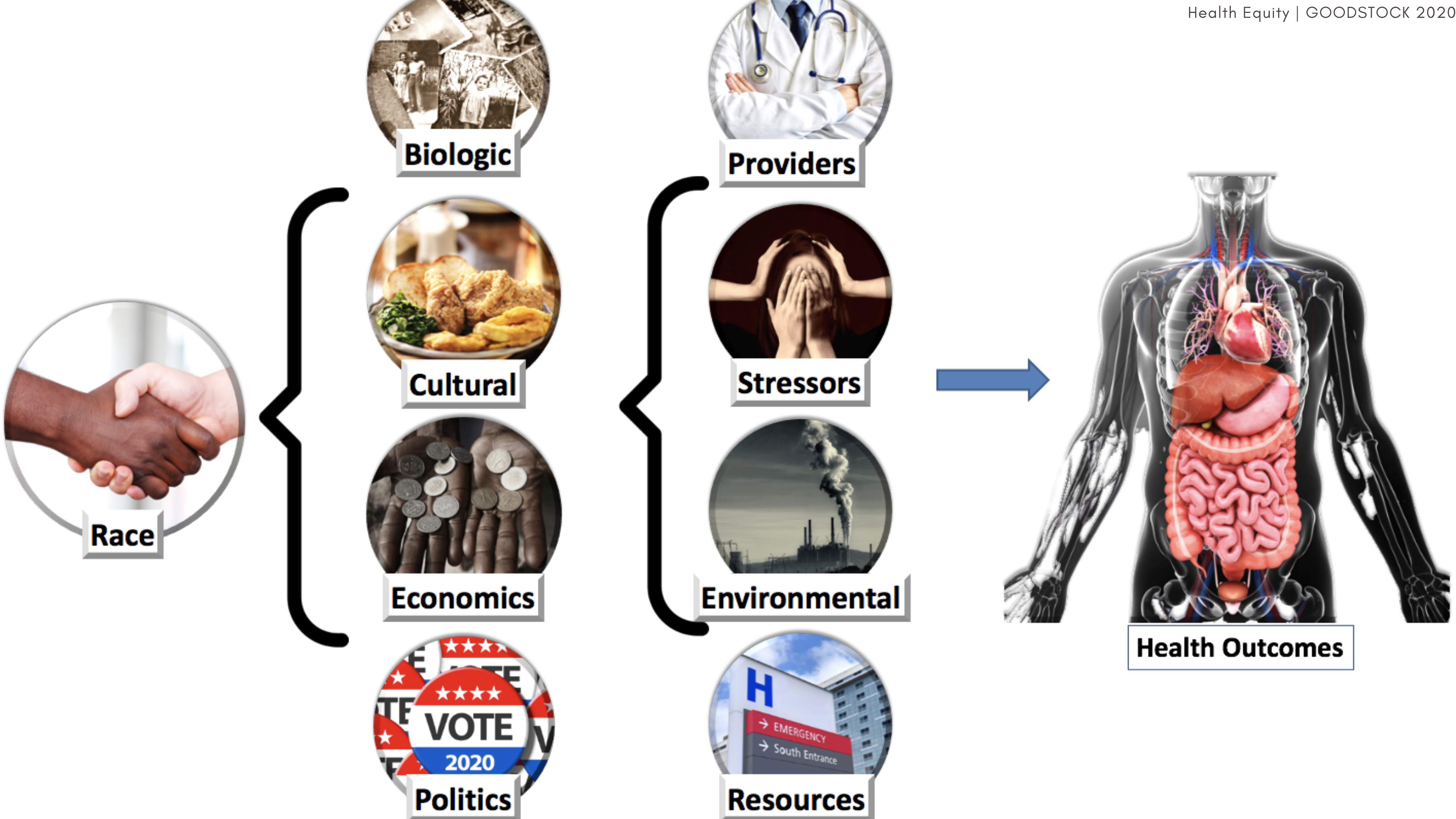
“All human beings, regardless of race, are more than **99.9% the same.**”



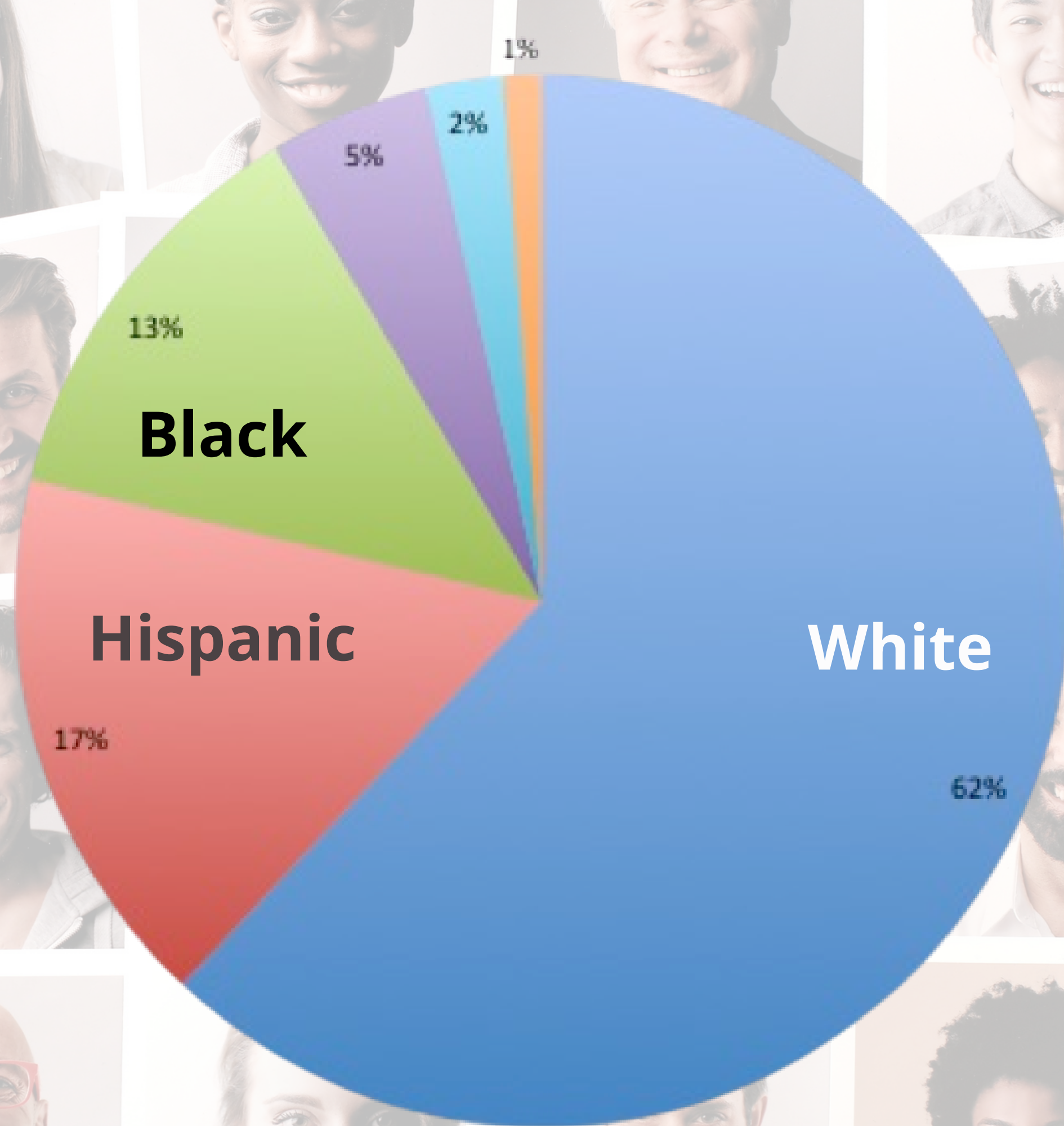
“ The variable Race is only a rough proxy to define one’s socioeconomic status, culture and genes... it is not a biological construct that reflects innate differences, but a social construct that precisely captures the impacts of racism. And it is for this reason some investigators now hypothesize that race-associated differences in health outcomes are in fact due to the effects of racism.

Camara Phyllis Jones, MD, MPH, PhD

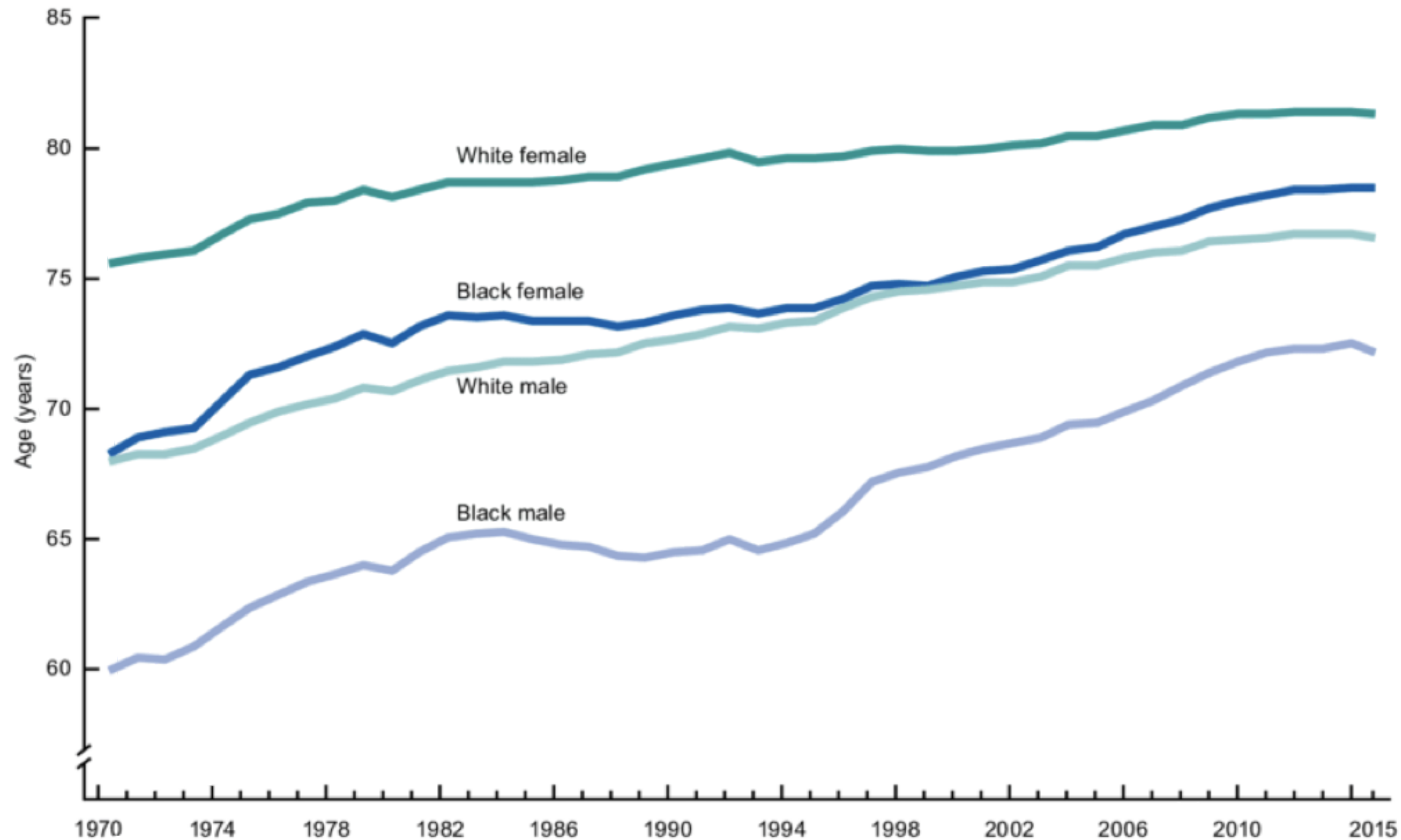




**Distribution of
U.S. Population
by
Race/Ethnicity,
2013**



Life Expectancy At Birth, By Race, 1970-2015



Source: NCHS. National Vital Statistics System, Mortality

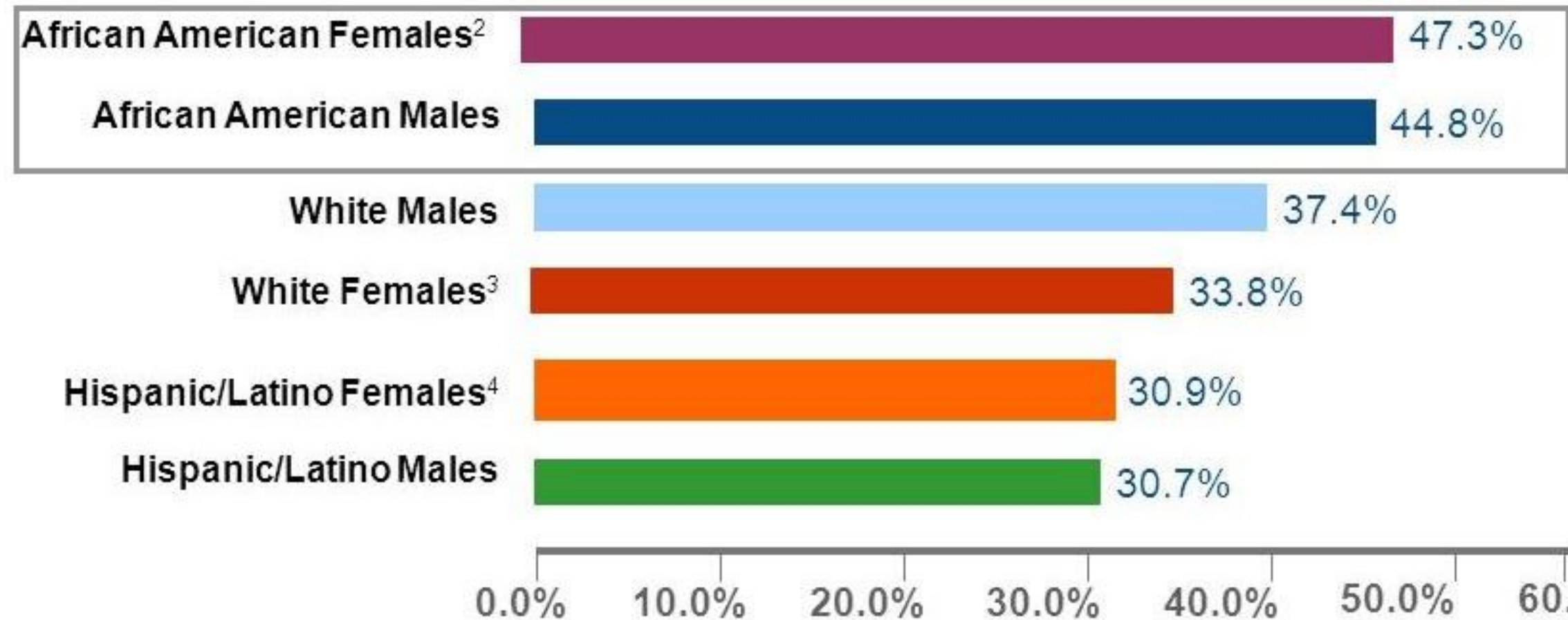
“
Of all the forms of
Inequality, **injustice In**
health Is the most
shocking and the most
Inhumane.

Dr. Martin Luther King, Jr
March 24, 1966



Heart Disease by Race & Gender, 2018

Leading Cause
of Death
Regardless of
Gender, Race,
& Ethnicity

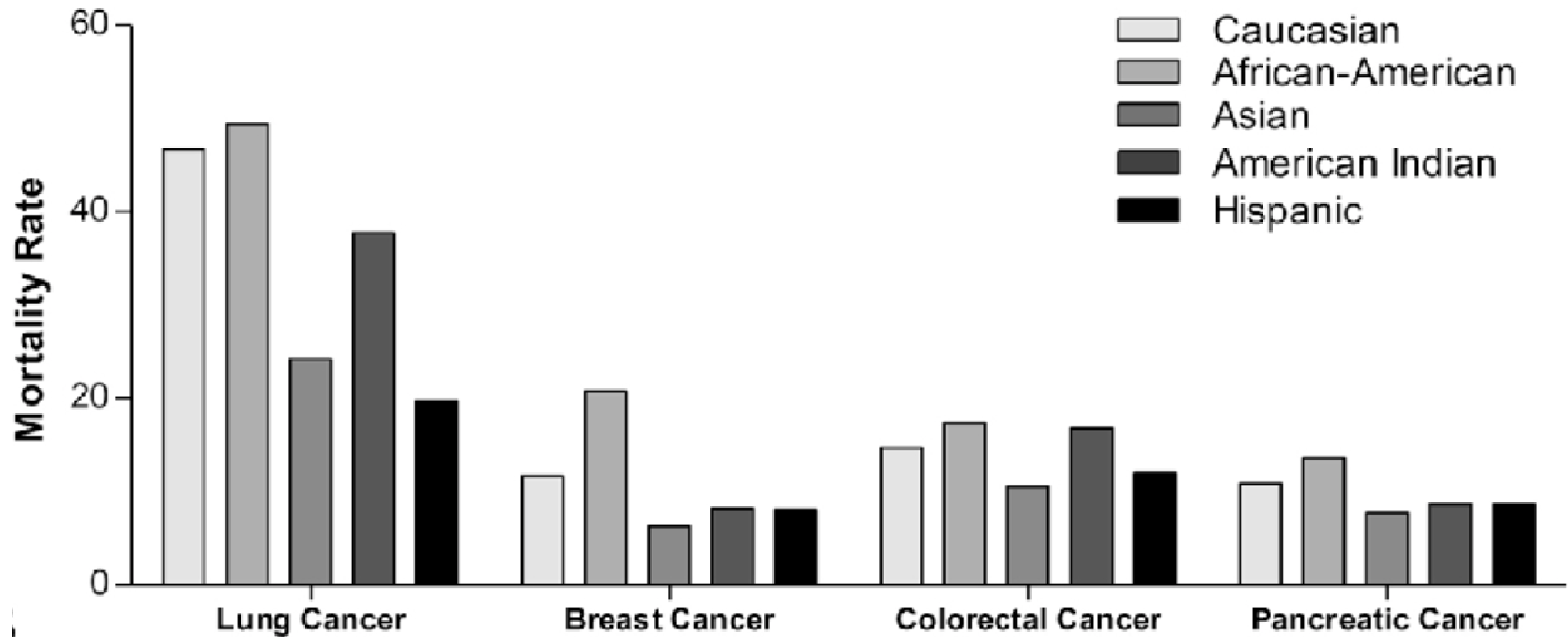


Source: the Heart Foundation, 2018

82.6 Million American Adults



Cancer Death Rates, '09-'13



Source: National Cancer Institute¹⁶

Black Men:

1.7x more likely to be diagnosed
w/ Prostate Cancer

2x more likely to die from
Prostate Cancer



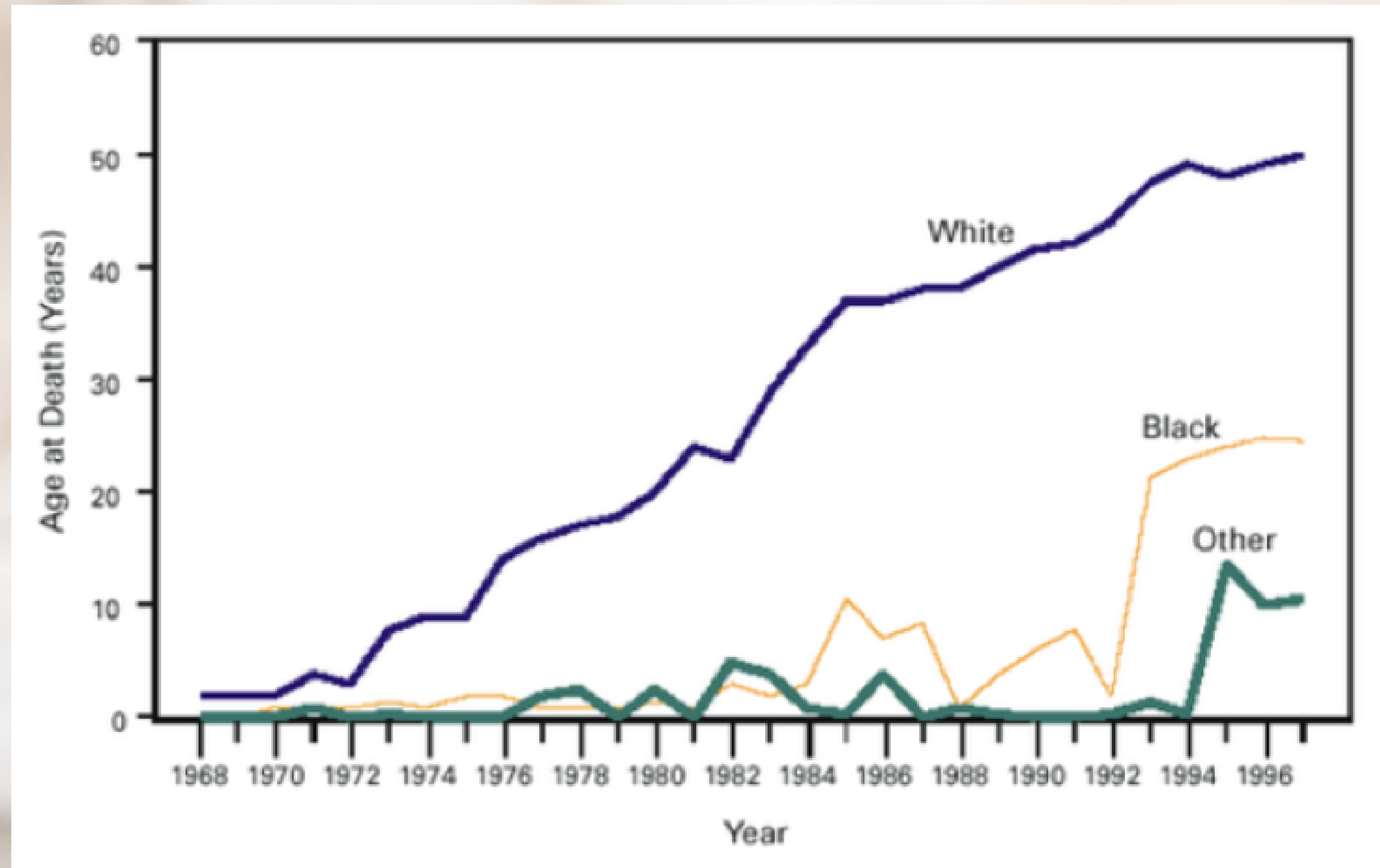
Black Women:

40% more likely to die
from Breast Cancer

2x more likely to die
from Cervical Cancer

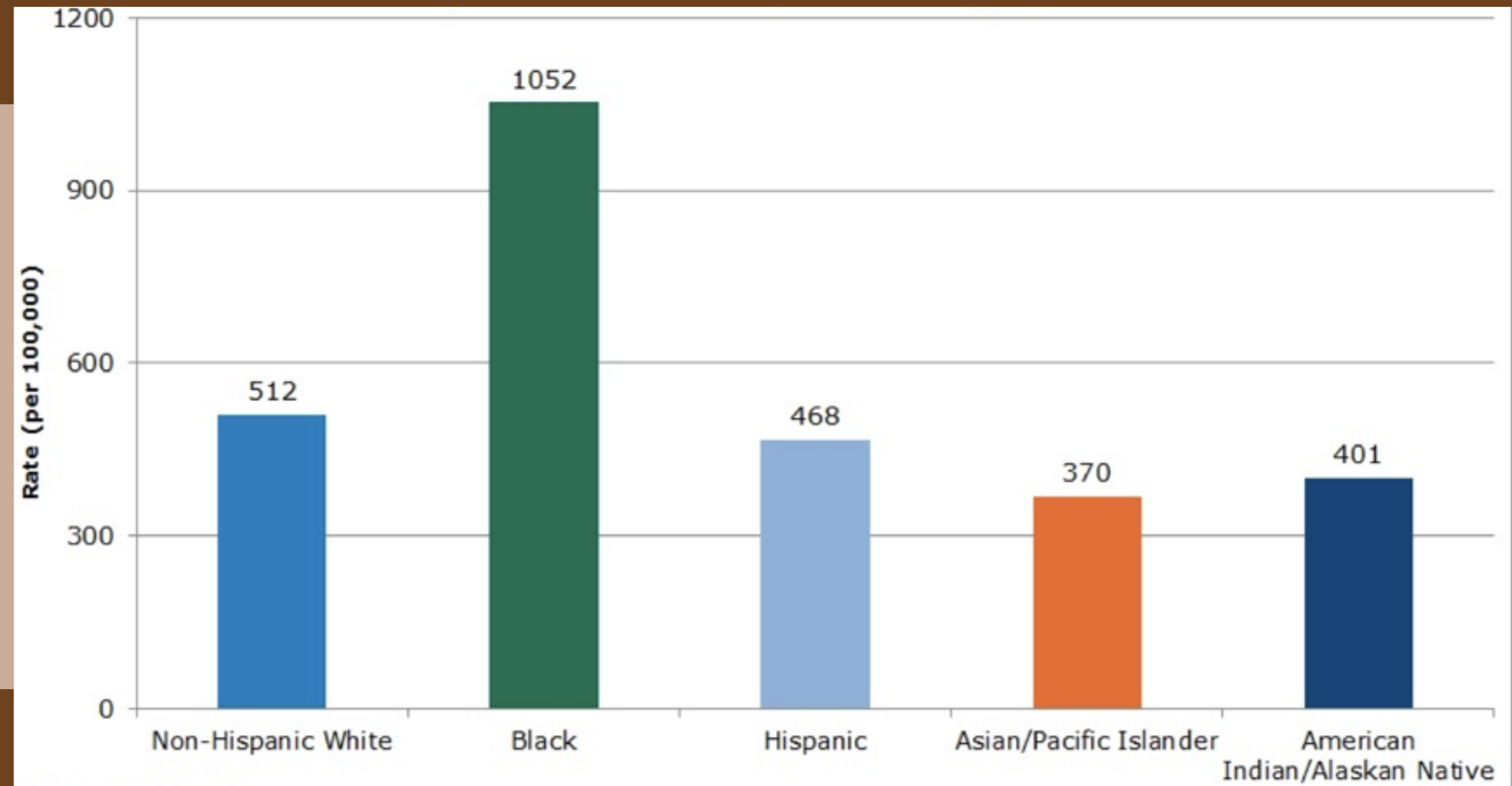


Median Age at Death, Down Syndrome, 1968-97



Source: CDC. Public use data file documentation, multiple cause of death (annual). Hyattsville, Maryland: US Department of Health and Human Services, CDC, National Center for Health Statistics, 1992.

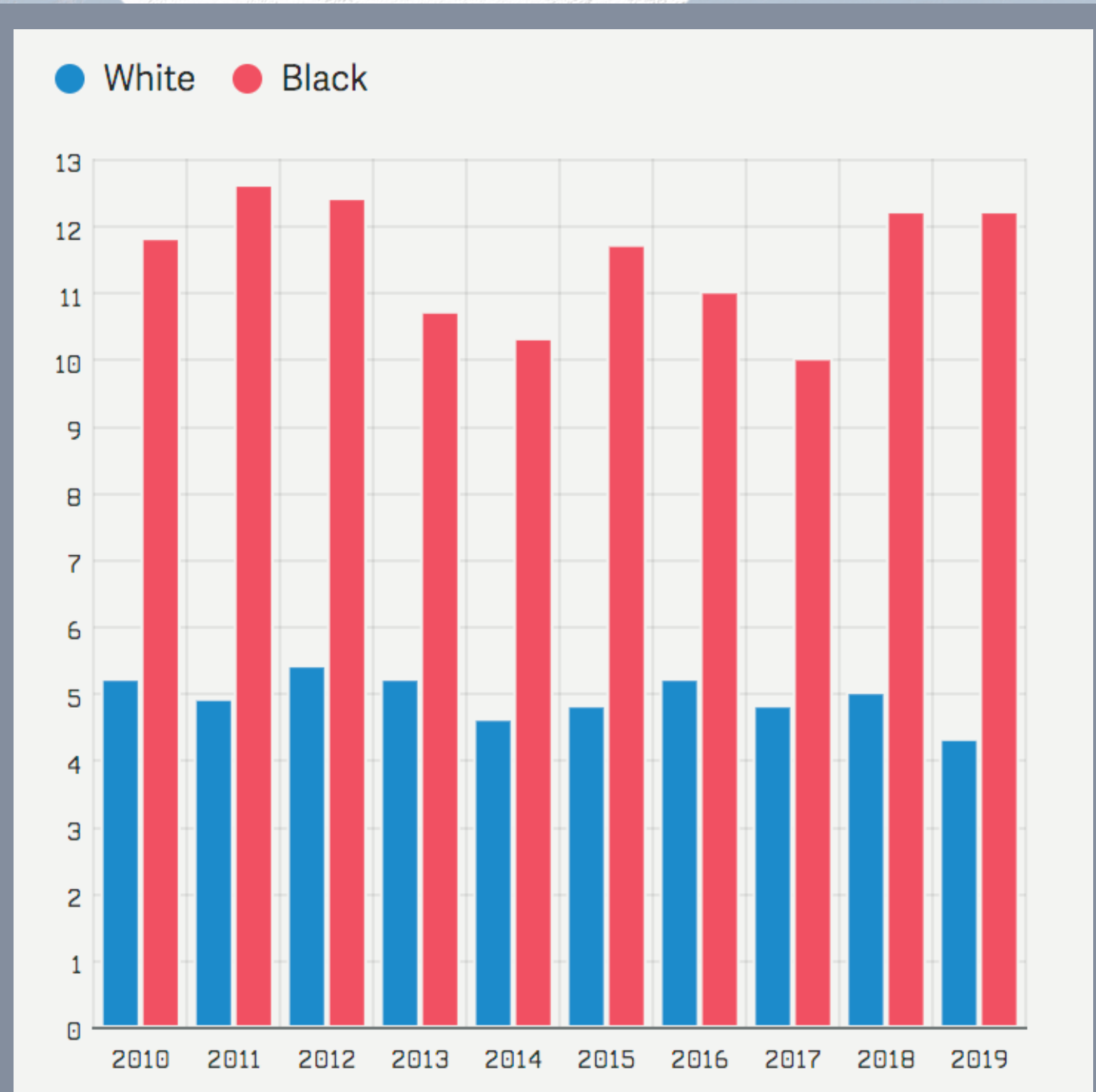
Death Rates for Infants (death per 100,000), by Race and Hispanic Origin, 2013



Source: Hoyert, D.L, Xu, J. (2012) Deaths: Preliminary data for 2011. National Vital Statistics reports, 61(6). Hyattsville, MD: National Center for Health Statistics. Table 1.

Black, White Infant Mortality Rate (SC), 2010-19

Death before the first birthday out of every 1,000 live births



The Post and Courier | Source: DHEC | Brandon Lockett

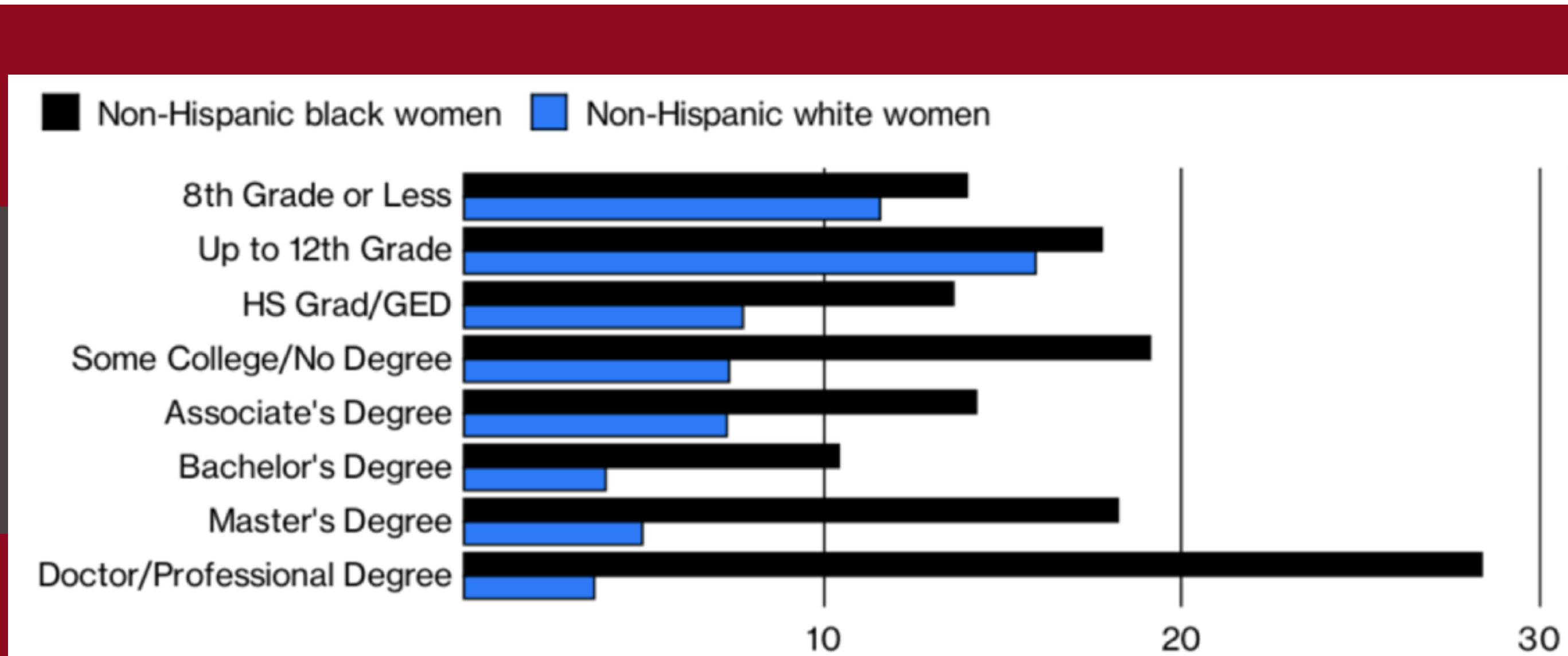
Black infants born in South Carolina were **nearly 3x as likely** as White babies **to die** before their 1st birthday.

8 of the 46 counties **lacked** a single **OB-GYN**.

Preterm birth rates are **50% higher in Black moms** than in White ones

Infant Mortality by Race of Mother

Average rate per 1,000 live births in 2013



Source: Duke University, Insight Center for Community Economic Development



When
you're the **only black**
woman in the room, when
you're often working
in elite circles where you
are the **first or you are**
the only, there is a
toll to be paid.

Bentley-Edwards, PhD
Assistant Professor Internal Medicine, Duke University
Associate Research Director, Duke's Samuel DuBois Cook Center on Social Equity

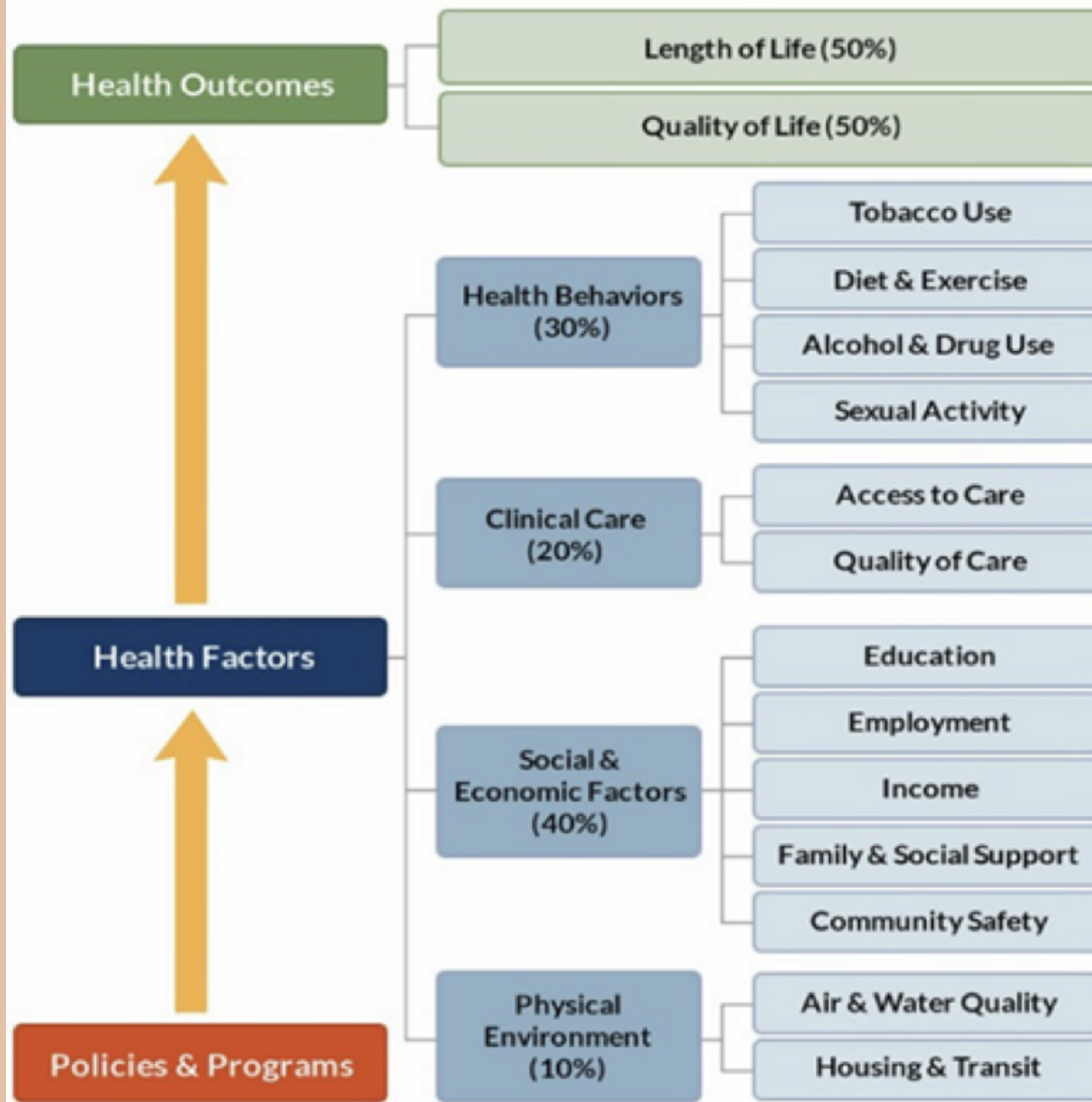


U.S. Maternal Mortality Ratio by Race, 2011

Maternal Deaths per 100,000 live births



Source: Centers for Disease Control and Prevention
Graphic by Tiffany Farrant-Gonzalez, for Scientific American



Source: County/Health Rankings model 2014 UWPHI

One's
Physical Environment
and **Socio-Economic**
factors contributes to
50%
of
their health outcomes.



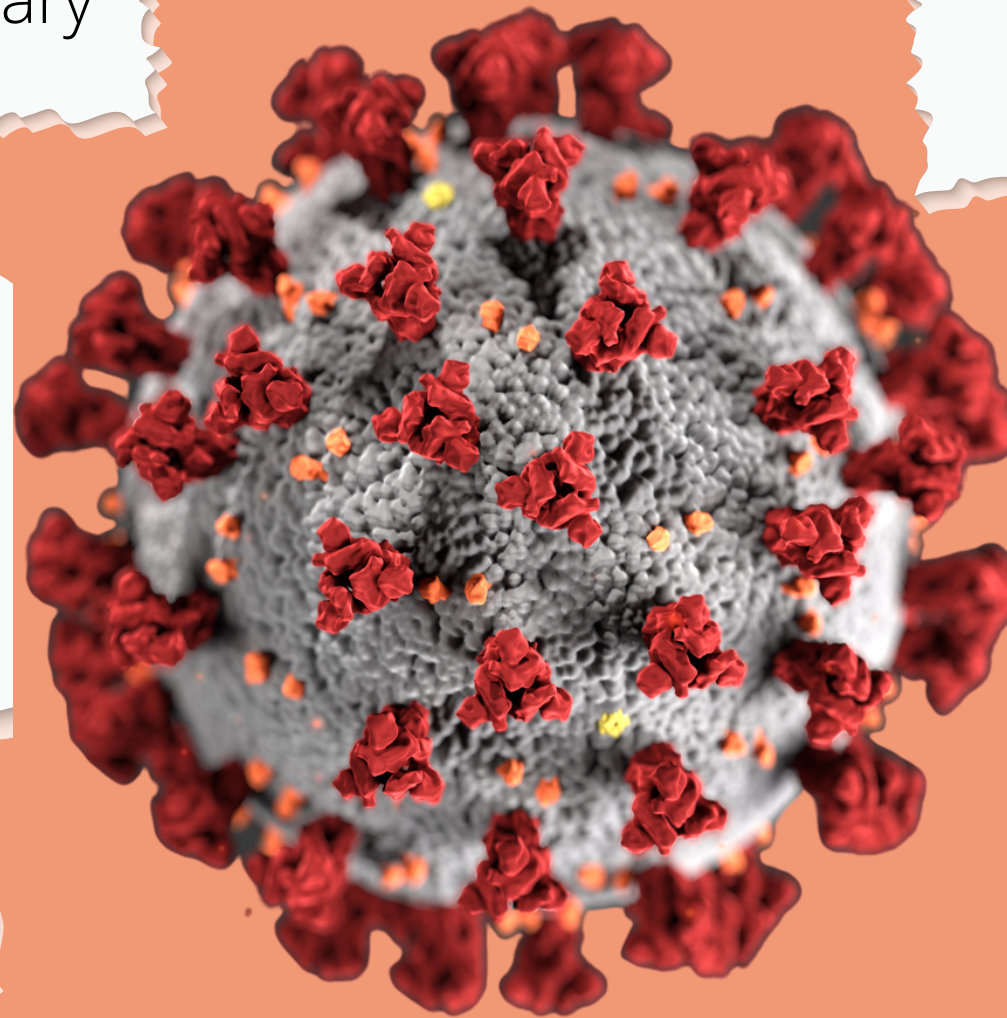


COVID-19

1 In Every 900 Blacks have died since January

Black people are dying at death rate of white people a Decade older

1 In 10 Blacks who have died are <55yo



1 In every 600 Black Children In NYC have lost a parent

Black Children are 5x More Likely to be Hospitalized

75% of all Children who have died are a racial minority

If **Black People** Died at the **same rate** as Whites,
21,800 would be ALIVE today



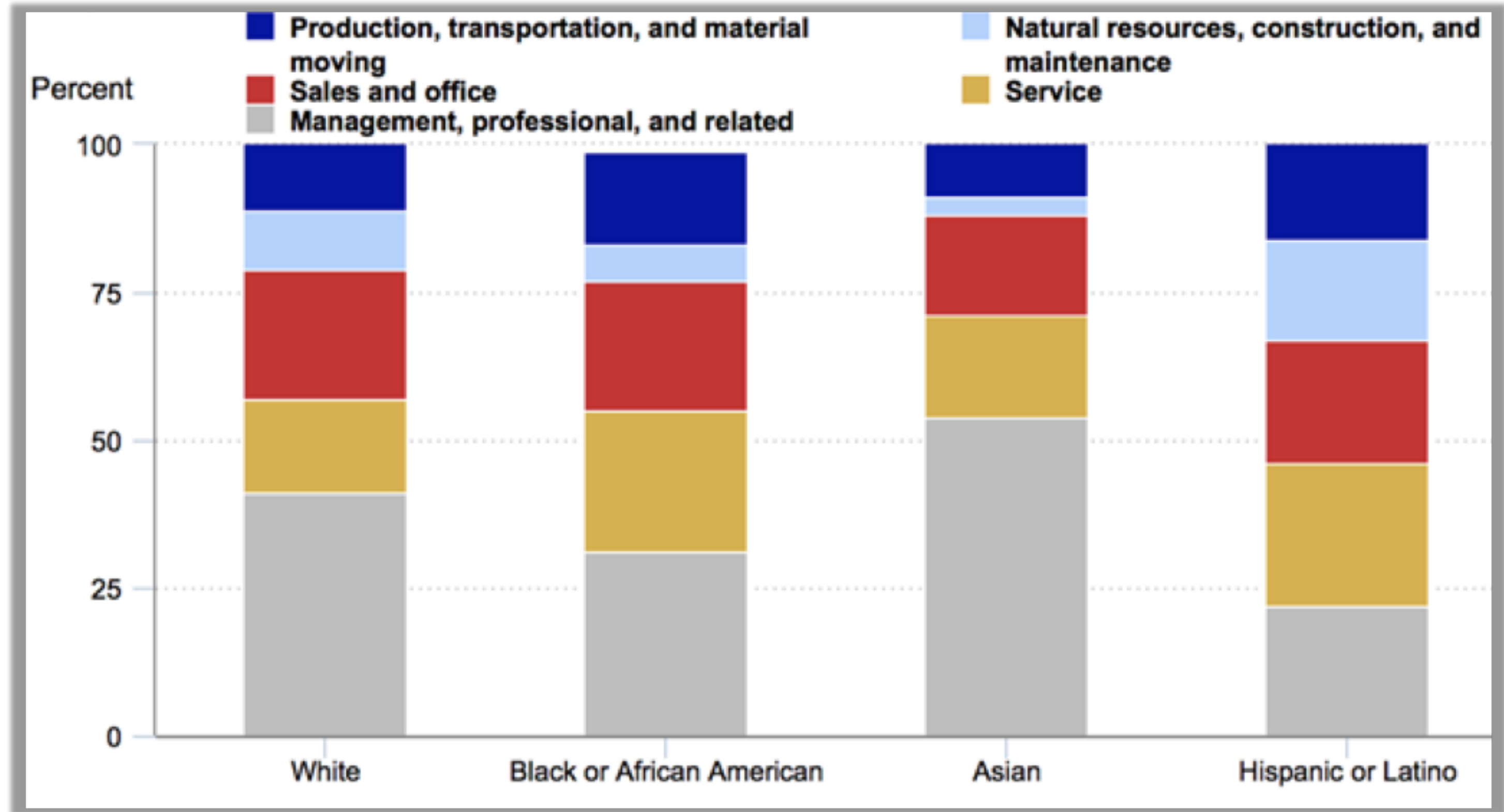
SUPER HEROS WITHOUT A CAPE:

Salute to Our
Essential Workers

WHO WORKS HERE

Employed people by Occupation, Race, Ethnicity: 2018 Annual Averages

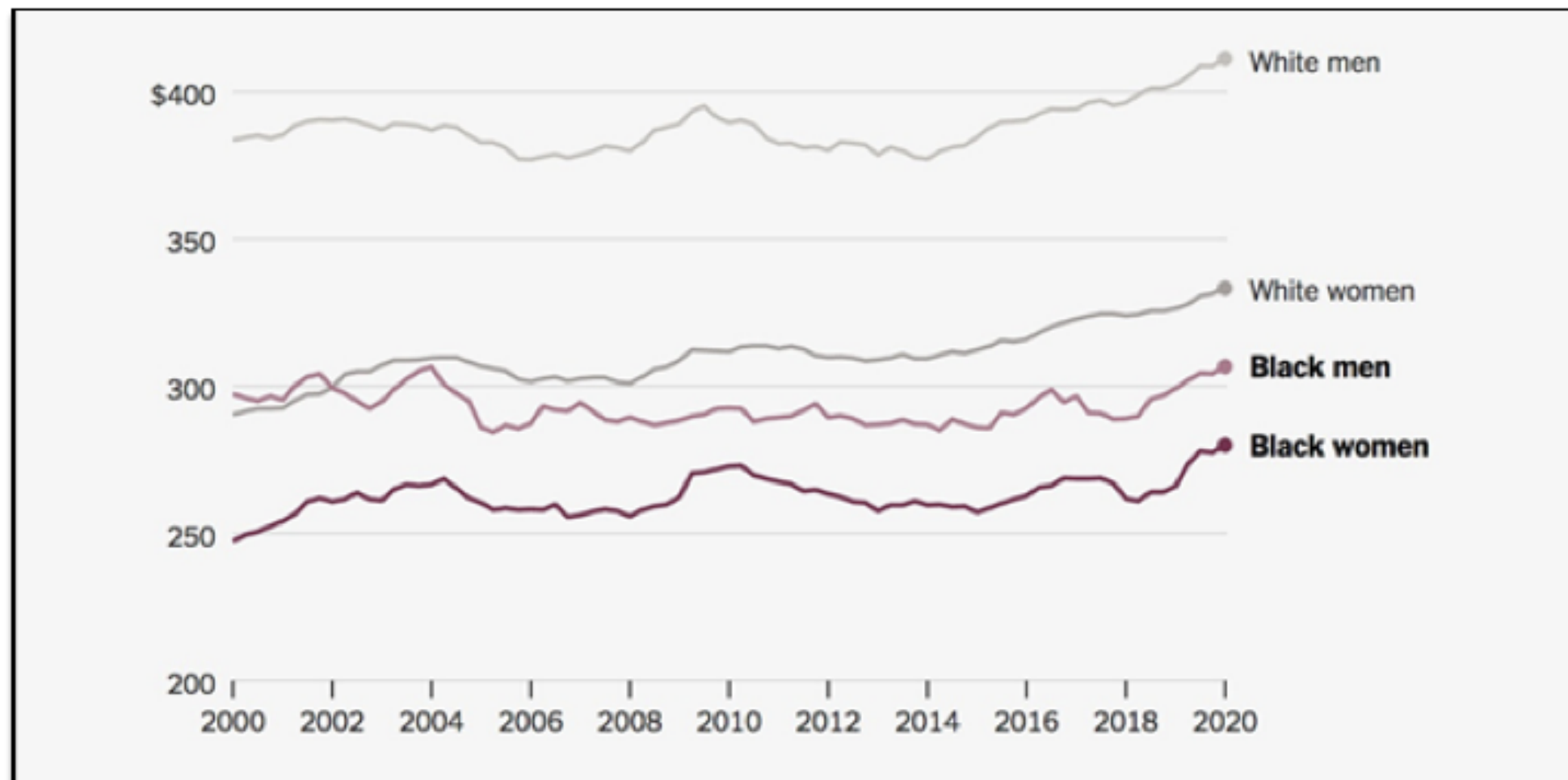
Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS)



RACE, EMPLOYMENT, + WAGES

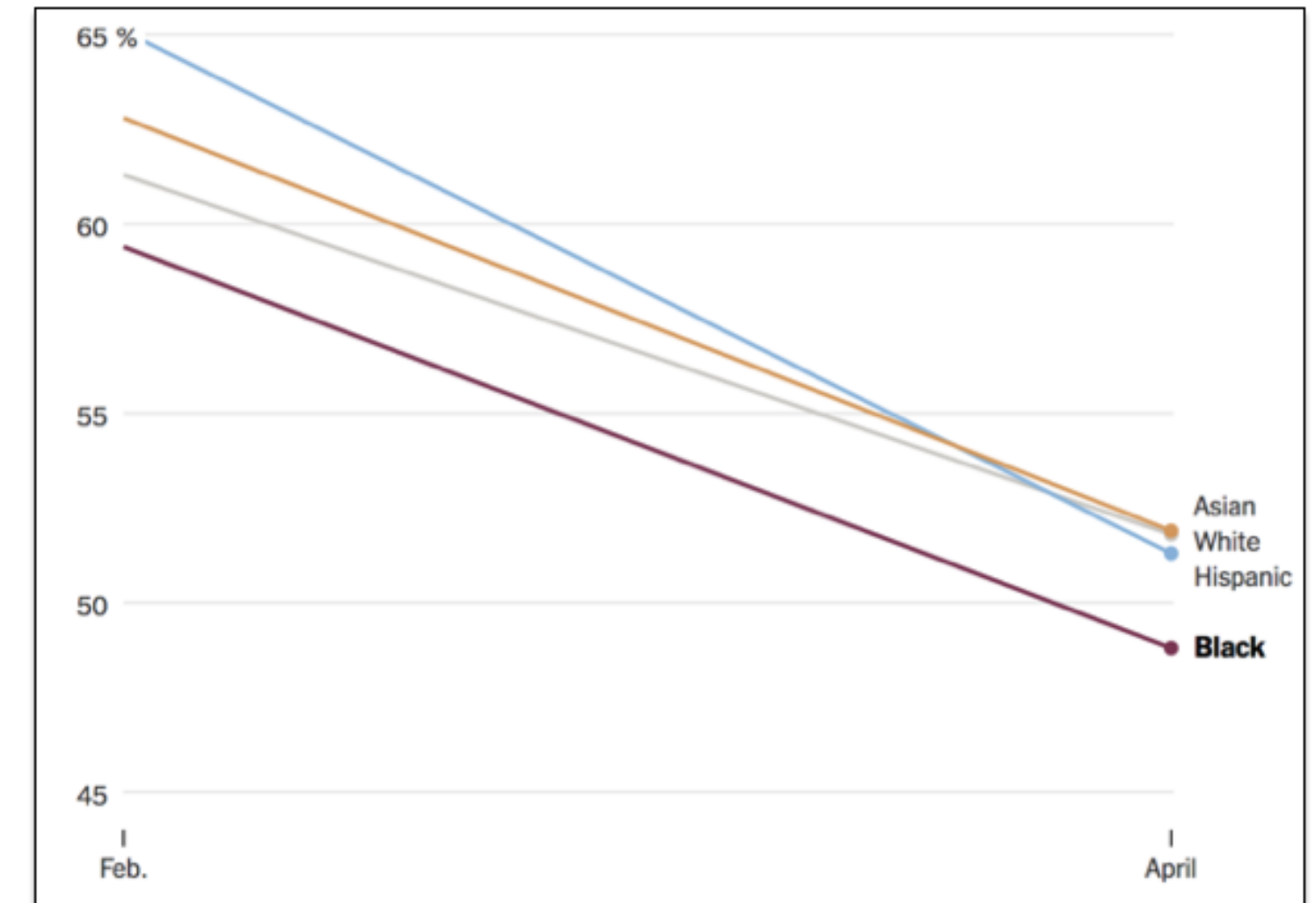
Median Weekly Earnings, by race and sex

By The New York Times_ Source: Bureau of Labor Statistics, via Federal Reserve Economic Data



Working Population Pre and Post Pandemic Shutdowns

By The New York Times_ Source: Bureau of Labor Statistics



RACE + HOUSEHOLD INCOME



WHITE: \$1.00



HISPANIC: \$0.72



NATIVE AMERICAN: \$0.62



BLACK: \$0.59

RACE + WEALTH



For every dollar of wealth that **Whites** have...



Hispanics have **\$0.12**



Blacks have **\$0.10**

REDLINING

*the **systematic denial** of various services by federal government agencies, local governments as well as the private sector either directly or through the selective raising of prices.*

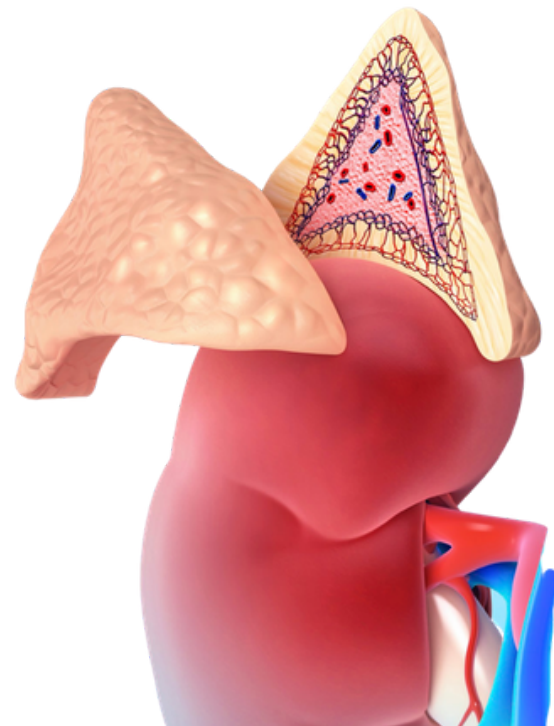


HOUSING SEGREGATION + SES

A study of the effects of segregation on young Black adults found that **elimination of segregation** would erase black-white differences in income, education, unemployment and reduce racial differences in single motherhood by 66%.



PHYSIOLOGICAL EFFECTS OF STRESS



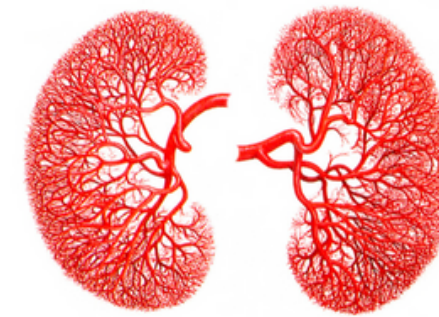
Cortisol

Glucagon

Catecholamines



Tachycardia
Vasoconstriction
Hypertension



Retention of Na⁺
Retention of Water
Increased Blood Volume



Gluconeogenesis
Increased Fat & Protein Mobilization
Immunosuppression
Obesity



Decreased Insulin Sensitivity

Perspective

The Neuroendocrine Impact of Chronic Stress on Cancer

Premal H. Thaker¹
Susan K. Lutgendorf²

ABSTRACT

Behavioral processes have long been suspected to influence many health processes including effects on cancer. However, mechanisms underlying these observations are not fully understood. Recent work has demonstrated that chronic behavioral stress results in higher levels of tissue catecholamines, greater tumor burden, and a more invasive pattern of ovarian cancer growth in an orthotopic mouse model. These effects are mediated primarily through the β_2 adrenergic receptor (ADRB2) activation of the tumor cell cyclic AMP (cAMP)-protein kinase A (PKA) signaling pathway. Additionally, tumors in stressed animals have increased vascularization and enhanced expression of vascular endothelial growth factor (VEGF) and matrix metalloproteinases (MMPs) -2 and -9. In this review, we highlight the importance of the neuroendocrine stress response in tumor biology and discuss mechanisms by which the β -adrenergic receptors on ovarian cancer cells enhance angiogenesis and tumor growth.

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745.5266; Fax:



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Curr Hypertens Rep. Author manuscript; available in PMC 2013 June 27.

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Curr Hypertens Rep. 2010 February ; 12(1): 10–16. doi:10.1007/s11906-009-0084-8.

Chronic Psychosocial Stress and Hypertension

Tanya M. Spruill

Abstract

Genetic and behavioral factors do not fully explain the dev increasing evidence suggesting that psychosocial factors m Exposure to chronic stress has been hypothesized as a risk : occupational stress, stressful aspects of the social environm have each been studied extensively. The study of discrimin growing area of investigation and may also help to explain hypertension. Research regarding mechanisms underlying s largely focused on cardiovascular reactivity, but delayed re increasingly being evaluated as another possible pathway. I are reviewed, and directions for future research are discuss



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Curr Obes Rep. Author manuscript; available in PMC 2013 March 01.

Published in final edited form as:
Curr Obes Rep. 2012 March ; 1(1): 16–25. doi:10.1007/s13679-011-0006-3.

Effects of Chronic Social Stress on Obesity

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Susan J. Melhorn, and
University of Washington, Harborview Medical Center, 925 Ninth Avenue, Box 359780, Seattle, WA 98104, USA

Randall R. Sakai
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Karen A. Scott: scottk2@mail.uc.edu; Susan J. Melhorn: smelhorn@u.washington.
sakairr@ucmail.uc.edu

Abstract

The prevalence of overweight and obesity has markedly increased di Stress has been suggested as one environmental factor that may cont obesity. In this review, we discuss the role that exposure to chronic s development of obesity, with particular attention to the effects of chi particular importance is the effect that social stress has on dietary pr and regional distribution of adipose tissue. We present evidence from that links sympathetic nervous system and hypothalamic-pituitary-ac



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Psychol Sci. Author manuscript; available in PMC 2014 July 01.

Published in final edited form as:
Psychol Sci. 2013 July 1; 24(7): 1309–1316. doi:10.1177/0956797612468010.

Maternal stress and infant mortality: The importance of the preconception period

Quetzal A. Class, B.S.¹, Ali S. Khashan, Ph.D.², Paul Lichtenstein, Ph.D.³, Niklas Långström, Ph.D., M.D.³, and Brian M. D’Onofrio, Ph.D.¹

¹Indiana University, Bloomington, Department of Psychological and Brain Sciences, Bloomington, IN, US ²Anu Research Centre, Department of Obstetrics and Gynaecology, University College Cork, Cork, Ireland ³Karolinska Institutet, Department of Medical Epidemiology and Biostatistics, Stockholm, Sweden

Abstract

Although preconception and prenatal maternal stress are associated with adverse birth and childhood outcomes, the relation to infant mortality remains uncertain. We used logistic regression to study infant mortality risk following maternal stress within a population-based sample of offspring born in Sweden from 1973 to 2008 (N= 3,055,361). Preconception (6-0 months before conception) and prenatal (conception to birth) stress was defined as death of a first-degree relative

Chronic Stress And Diabetes Mellitus

Article in [Current Diabetes Reviews](#) 15(6) · November 2019 with 28 Reads ⓘ
DOI: [10.2174/1573399815666191111152248](#)
↓ Cite this publication



Vivek Kumar Sharma



Thakur Gurjeet Singh
1127.44 · Chitkara College of Pharmacy, Chitkara Un...

Abstract

Stress threatens the homeostasis and mobilizes a plethora of adaptive physiological and behavioral changes via the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system. The HPA axis influences pituitary gland, hypothalamus and adrenal gland via a complex set of positive and negative feedback system. The feedback system operates in a well regulated neuroendocrine manner to reestablish the threatened body equilibrium. The HPA axis secreted major product is glucocorticoid (cortisol) which is kept within a physiologically optimal range and serve to accomplish the various physiological functions crucial for survival. In chronically stressed individuals dishabituation of HPA axis is followed by increased release of glucocorticoids and catecholamines. Higher secretion of glucocorticoids influence glucose metabolism by promoting gluconeogenesis in liver, suppressing glucose uptake (adipocytes and

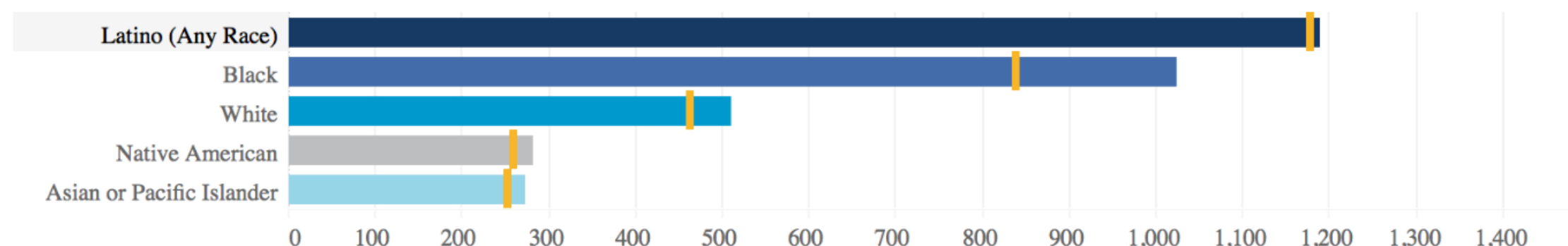
“
Despite their best intentions,
health providers
may take complaints by **white**
patients more seriously than
complaints by **people of color**.
”



COVID-19 Emergency Department Visits

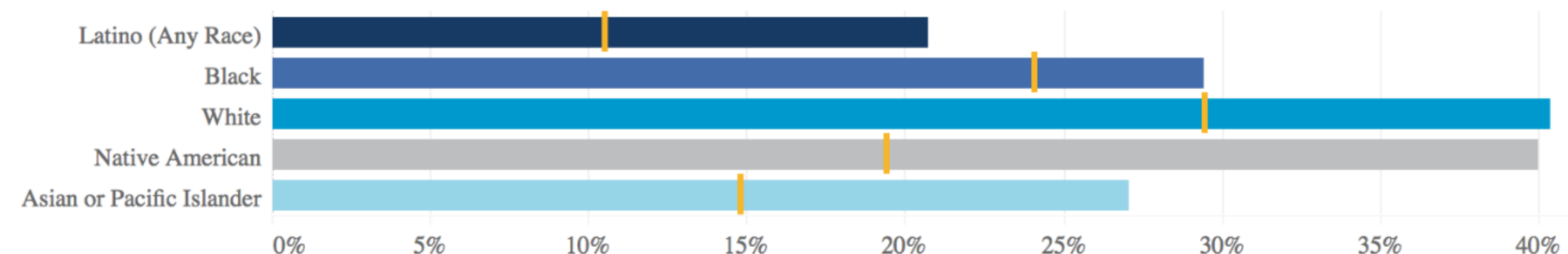


COVID-19 Related Visits per 100,000 Residents: Central Region



Since early March, Hispanic or Latino people have had the highest rate of COVID-19 related ED visits per 100,000 residents in Virginia. Non-Hispanic Blacks had the second highest rate in Virginia. However, there is wide variation among racial and ethnic groups by region. Use the dropdown menu in the map above to scroll through Virginia's Health Planning Regions.

Share of COVID-19 Related Visits that Resulted in a Hospitalization: Central Region



Research shows that despite their best intentions, health providers may take complaints by white patients more seriously than complaints by people of color. While it is too early to be sure, these trends suggests that this may be happening with COVID-19 ED visits, as non-Hispanic Whites showing up at EDs are being admitted at a higher rate than other races. Other factors, such as age, disparities in health insurance, income and better access to quality medical services may also be playing a role. The data we collect now will help inform efforts, now and in the future, to prevent disparities.

Racial bias In pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites

Kelly M.Hoffman, Sophie Trawalter, Jordan R. Axt, and M. Norman Oliver

Table 1. Percentage of white participants endorsing beliefs about biological differences between blacks and whites					
Item	Study 1: Online sample (n = 92)	Study 2			
		First years (n = 63)	Second years (n = 72)	Third years (n = 59)	Residents (n = 28)
Blacks age more slowly than whites	23	21	28	12	14
Blacks' nerve endings are less sensitive than whites'	20	8	14	0	4
Black people's blood coagulates more quickly than whites'	39	29	17	3	4
Whites have larger brains than blacks	12	2	1	0	0
Whites are less susceptible to heart disease than blacks*	43	63	83	66	50
Blacks are less likely to contract spinal cord diseases*	42	46	67	56	57
Whites have a better sense of hearing compared with blacks	10	3	7	0	0
Blacks' skin is thicker than whites'	58	40	42	22	25
Blacks have denser, stronger bones than whites*	39	25	78	41	29
Blacks have a more sensitive sense of smell than whites	20	10	18	3	7
Whites have a more efficient respiratory system than blacks	16	8	3	2	4
Black couples are significantly more fertile than white couples	17	10	15	2	7
Whites are less likely to have a stroke than blacks*	29	49	63	44	46
Blacks are better at detecting movement than whites	18	14	15	5	11
Blacks have stronger immune systems than whites	14	21	15	3	4
False beliefs composite (11 items), mean (SD)	22.43 (22.93)	14.86 (19.48)	15.91 (19.34)	4.78 (9.89)	7.14 (14.50)
Range	0-100	0-81.82	0-90.91	0-54.55	0-63.64
Combined mean (SD) (medical sample only)			11.55 (17.38)		

Survey to White Medical Students and Residents describing biological differences between black and white patients

Clinical Vignette of a black and white patient describing painful event and prescribing treatment options

Racial bias In pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites

Kelly M.Hoffman, Sophie Trawalter, Jordan R. Axt, and M. Norman Oliver

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Range	0–100	0–81.82	0–90.91	0–54.55	0–63.64
Combined mean (SD) (medical sample only)			11.55 (17.38)		

Those endorsing false beliefs rated the **pain of black patient half a scale point lower** and were **less accurate in their treatment recommendations 15% of the time**

Race and Surgical Mortality in the United States

F. L. Lucas, PhD,* Therese A. Stukel, PhD,† Arden M. Morris, MD, MPH,‡
Andrea E. Siewers, MPH,* and John D. Birkmeyer, MD‡



Medicare Data: 5yr

- Black race was associated with an increased risk of death after 7 out of 8 major cardiovascular or cancer procedures
- Even when adjusting for comorbidity

Racial Differences in Complication Risk Following Emergency General Surgery: Who Your Surgeon Is May Matter

Nidhi Rhea Udyavar, MD,^{a,*} Ali Salim, MD,^b Edward E. Cornwell III, MD,^c
Zain Hashmi, MD,^a Stuart R. Lipsitz, ScD,^{a,b} Joaquim M. Havens,^{a,b}
and Adil H. Haider, MD, MPH^{a,b}



- 215,745 cases performed by 5816 surgeons, 198 hospitals
- Black patients had a higher adjusted risk of having a complication than white patients
- Surgeon random effects**, when hospital fixed effects were held constant, **accounted for 27.2% of the unexplained variation in complication risk among surgeons.**
- This effect was modified by patient race; for white patients, surgeon random effects explained only 12.4% of the variability, compared to 52.5% of the variability in complications among black patients

Race, Postoperative Complications, and Death in Apparently Healthy Children

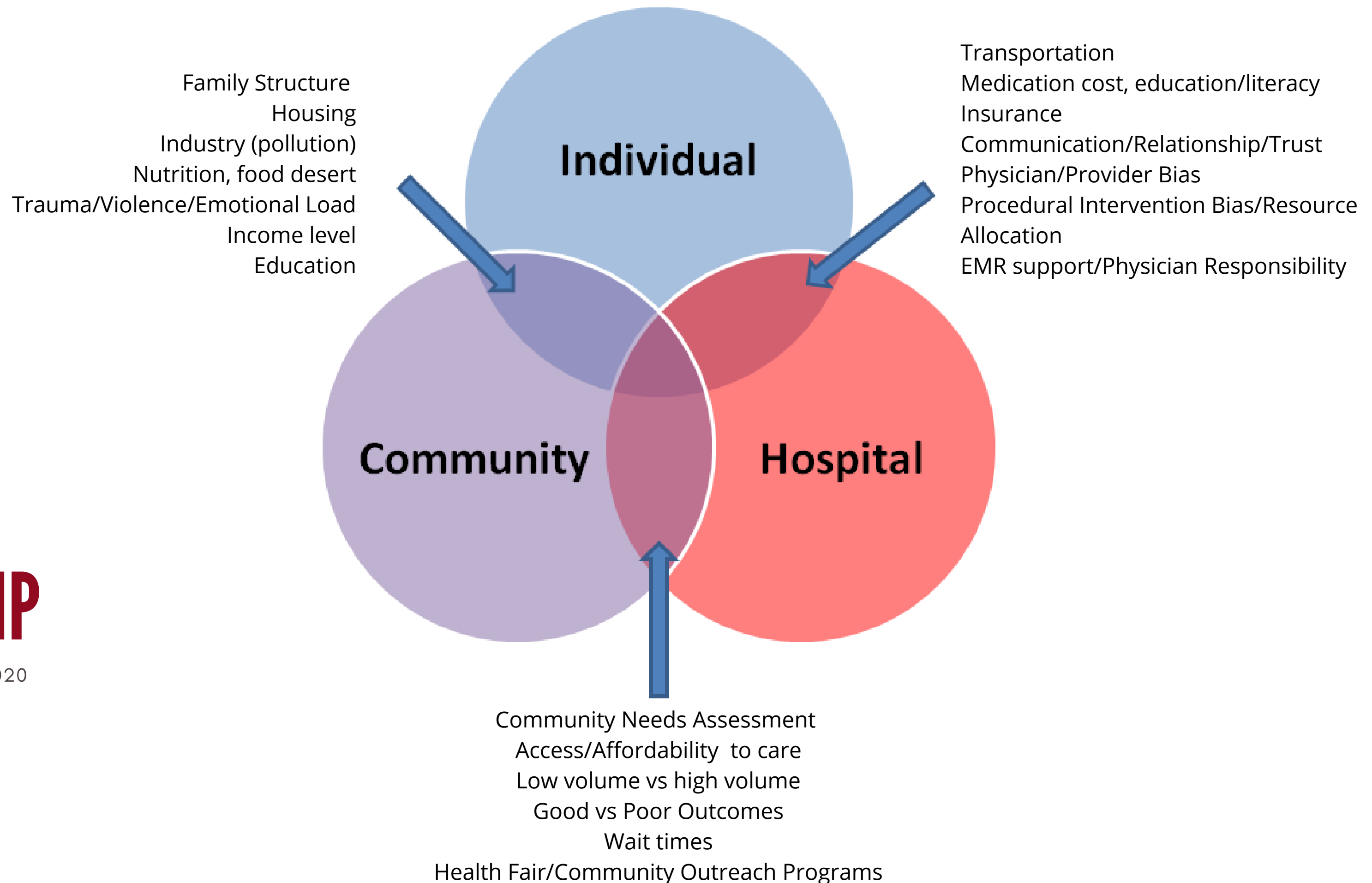
Olubukola O. Nafiu, MD, FRCA, MS, Christian Mpody, MD, PhD, MPH, MBA, Stephani S. Kim, MPH, PhD,
Joshua C. Uffman, MD, MBA, Joseph D. Tobias, MD



- 172,549 healthy children: Black children
- 3.43x odds 30d Mortality
- 18% relative greater odds of developing postoperative complications
(OR: 1.18; 95% CI: 1.13–1.23)
- 7% relative higher odds of developing serious adverse events
(OR: 1.07; 95% CI: 1.01–1.14).

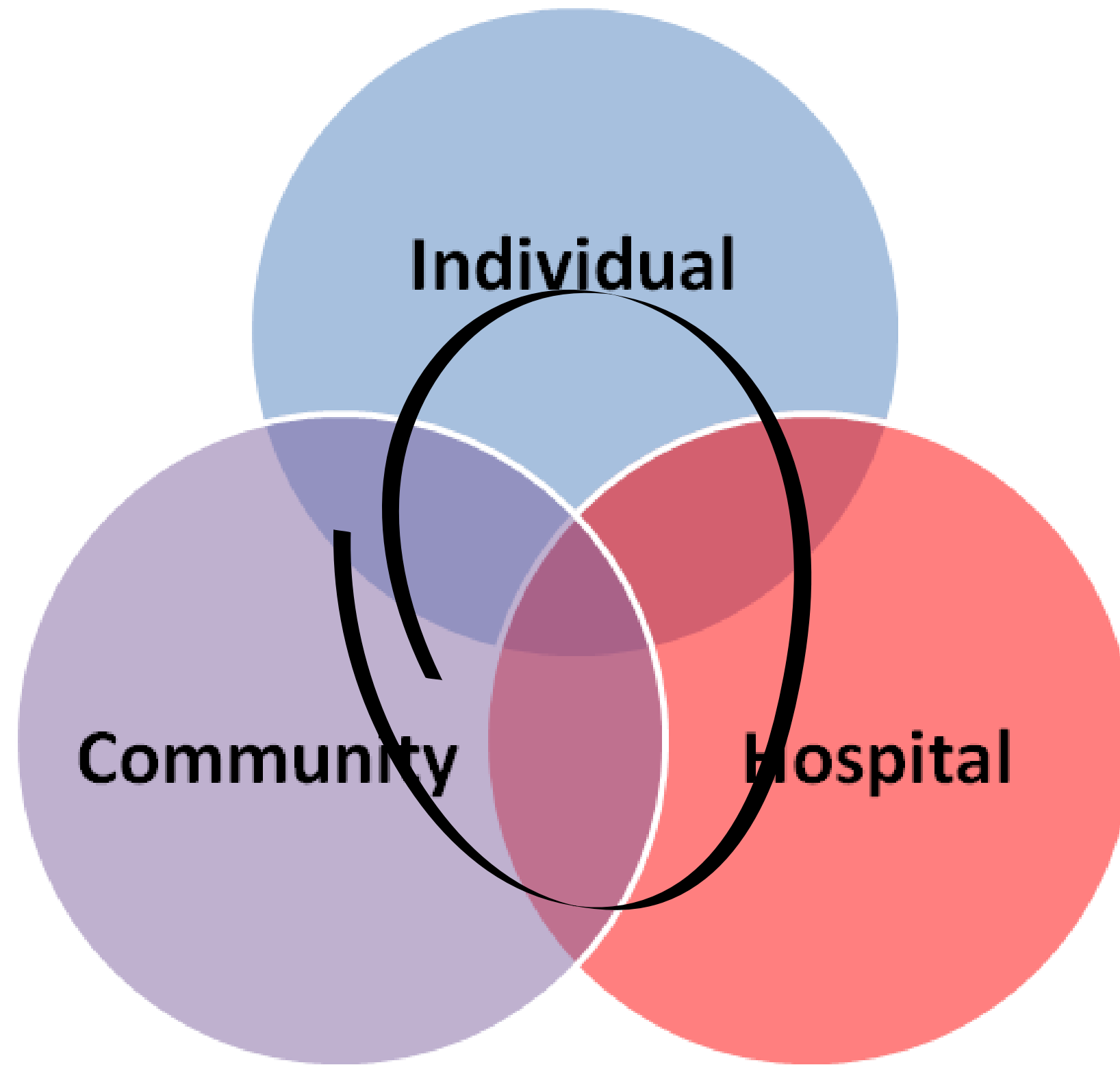
DISRUPTING DISPARITIES: A COMPLEX RELATIONSHIP

Health Equity | GOODSTOCK 2020



DISRUPTING DISPARITIES: A COMPLEX RELATIONSHIP

Health Equity | GOODSTOCK 2020



We are the missing piece.



DISRUPTING DISPARITIES IN ACTION: GOODSTOCK CONSULTING, LLC

We empower leaders to see the value in
their services and potential in their
teams.

We engage underserved communities
to drive and sustain change.

We teach and strengthen organizational
capacity.

We cultivate trust between
organizations and the vulnerable
communities they serve.

We build **GOOD STOCK**.

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